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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,004	05/22/2002	Masahiro Mimura	566.40671X00	2837

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EXAMINER
TUCKER, WESLEY J

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/937,004	MIMURA ET AL.
Office Action Summary	Examiner	Art Unit	
	Wes Tucker	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 5-10* is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 5-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a)☒ All　b)☐ Some * c)☐ None of:

　　1.☒ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *8-25-05*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on July 28th 2005 in response to the last office action filed March 29th 2005 has been entered and made of record.

2.   Applicant has amended claims 1 and 5. Claims 2-4 have been cancelled and new claims 6-10 have been added.

3.   Applicant's response has been entered but is not fully persuasive for at least the following reasons:

4.   Applicant has amended the claims 1 and 5 significantly. Therefore the discussion presented by Applicant in view of the first rejection does not fairly apply to the first rejection. Accordingly a new rejection is presented in view of the extensive amendments now presented. The new rejection is also accordingly made FINAL as necessitated by the amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In claim 7, in the phrase "determines the core position by averaging the

coordinates for the candidates points left over," it is unclear what the term "left over"

means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1 and 5-10 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of U.S. Patent 6,719,200 to Wiebe, Japanese Patent

Application Publication No. 06-301768 (Application No. 05-086477): Fingerprint

Collation Device, Publication Date: October 1994) to Iwata, hereinafter referred to as

Iwata, and U.S. Patent 5,040,224 to Hara.

With regard to claim 1, Wiebe discloses *an authentication system* (abstract)

comprising:

A mobile storage device (column 3, lines 27-40 and Fig.1, element 1, smart card); and

A reader/writer (Fig.1, element 2) *for performing at least one of reading information and writing information into said mobile storage device* (column 10, lines 10-15),

Wherein said reader/writer comprises:

A biological information input device which inputs fingerprint information (Fig.1, element 8).

Wiebe further discloses preprocessing means for calculating coordinates or features of the fingerprint and rotating/translating the fingerprint to better register the stored fingerprint with the input fingerprint (column 5, lines 35-42 and column 6, lines 5-29). Wiebe discloses rotating and translating the image by the use of partial images and features which must inherently have known coordinates in order to register the images.

Wiebe further discloses *wherein said mobile storage device comprises:*

A template which registers a plurality of coordinates of featuring points of the fingerprint and small images in vicinity of the coordinates (column 5, lines 7-26 and column 9, lines 14-35). Wiebe discloses using partial images of the fingerprint to register the stored fingerprint with the newly input fingerprint. Knowing the location or coordinates of the partial images is inherent to using the location of image features for registration. The reduced data quantity image used for verification is further stored as a template (column 9, lines 14-18).

Wiebe further discloses **a private key to be used for electronic authentication** (column 3, lines 42-50 and column 1, lines 45-54). The sensitive information stored on the smart card may include, though is clearly not limited to a "key" which makes it possible to open a door to access authorized data, so-called digital certificates (column 3, lines 42-50) or more conventional information, such as a personal identification code or PIN (column 1, lines 50-54).

Wiebe further discloses **calculating means for calculating an information for correcting a positional displacement of an input fingerprint that is newly inputted, referring to a position generated in the reader/writer** (column 6, lines 15-27).

Wiebe further discloses **means for calculating coordinates of featuring points of the input fingerprint by calculating information for correcting the positional displacement with each of the coordinates of featuring points and request fingerprint images in the vicinity of the coordinates of featuring points of the inputted fingerprint from the reader/writer** (column 5, lines 12-34 and column 6, lines 18-28). Wiebe uses partial images or featuring points to compare data between fingerprints and using the partial images or featuring points it can be determined how to translate or rotate one or both of the fingerprints fro comparison.

Wiebe further discloses **Judging means for judging whether the small images in the vicinity of the coordinates of the fingerprint registered in the template and the small images in the vicinity of the coordinates of featuring points of the inputted fingerprint match** (column 5, lines 6-25) Wiebe discloses matching the two images using a reduced data content of partial images. Wiebe further discloses **in**

accordance with a plurality of results of the matching, judges whether the

fingerprint registered in the template and the input fingerprint are identical

(column 5, lines 20-26). Wiebe describes how verification is achieved using only a

selected amount of partial images.

Wiebe further discloses *Means for making the private key available when the*

result of judging fingerprints are identical (column 1, lines 45-50, column 3, lines 42-

50 and column 5, lines 52-64). Wiebe discloses how once verification is achieved on

the fingerprint data certain functions can be performed. Here the private key is

interpreted as the act of allowing access to certain sensitive information.

Wiebe further teaches *a transmitting means for transmitting the position*

generated in the preprocessing means to said mobile storage device according to

a request from said mobile storage device (column 6, lines 39-47). The smart card

has communication means capable of receiving and transmitting information. Using the

determined position to align images is just one of many well-known methods used in the

art to align and verify fingerprint images.

Wiebe does not disclose the limitations dealing with the core calculation and

alignment of the fingerprint information. Wiebe teaches that any method appropriate for

the application for comparing feature information of fingerprint information may be used

in the access method taught (column 6, lines 5-9).

Wiebe discloses *preprocessing means for calculating coordinates or*

features of the fingerprint and rotating/translating the fingerprint to better register

the stored fingerprint with the input fingerprint (column 5, lines 35-42 and column 6, lines 5-29). The coordinates are considered inherent to use the known locations of partial images for the registration of the fingerprints. Wiebe but does not expressly disclose the details of calculating the core position of the fingerprint.

Hara discloses *preprocessing means which calculates coordinates and curvatures for a plurality of candidate points of the fingerprint information inputted by the biological information input device* (column 2, lines 32-50 and column 6, lines 48-62 and column 7, lines 1-10).

Hara further discloses wherein a preprocessing means *Calculates an average value of the coordinates for the plurality of candidate points* (column 11, lines 53-66 and column 12, lines 5-19).

Hara further discloses wherein a preprocessing means *determines a core position by the average value of the coordinates for the plurality of candidate points* (column 12, lines 14-19).

Hara teaches a method of determining a core and Wiebe teaches that any fingerprint feature registration method deemed appropriate might be used in his registration (column 6, lines 5-9). Therefore it would have been obvious to one of ordinary skill in the art to use the core determination taught by Hara in combination with the fingerprint registration and access method taught by Wiebe to register fingerprints using the core determination.

Wiebe discloses the majority of the verification means including translational and rotational practices for correcting positional offsets in the fingerprints to be registered.

Hara teaches the calculation of a core position in a fingerprint using averages of coordinates. Although it should be obvious that the use of a core position determined by Hara in combination with the feature alignment taught by Wiebe would be useful in matching fingerprints, neither Hara nor Wiebe explicitly disclose using core position offset determination in matching fingerprints.

Iwata teaches calculating information for correcting positional offset and aligning two fingerprint images using a determined core position. The reference of Iwata is discussed here to teach that the use of a core position as determined by Hara would be used to determine the specifics of the offset correction disclosed by Wiebe.

Iwata discloses a method for biometric authentication similar to that of Wiebe by determining in the degree to which a captured fingerprint image (Fig. 1 and paragraph 0031, sentence 2 and page 11, line 18, the input fingerprint) matches a previously stored template (i.e. a registration fingerprint image). Like the Applicant's claimed invention, Iwata aligns the input fingerprint image and template using their respective core positions in order to facilitate subsequent matching procedures (page 8, paragraph 0026).

Iwata further discloses calculating information for correcting a positional displacement between said registered fingerprint and an input fingerprint that is newly input by using a core position of the fingerprints (page 9, lines 32-45, page 10, lines 1-5 and page 12, paragraph 0053). Specifically, Iwata extracts a singular point (e.g. the core – page 12, line 48) from each fingerprint (paragraph 0035). Then, using the

extracted singular points aligns (i.e. correct for positional displacement of) the input fingerprint image with respect to the template, or vice versa (paragraph 0035). The alignment can be achieved by shifting one of the images so that the singular points of both images coincide (i.e. the position of the extracted points are brought "into agreement" (page 10, paragraph 0035 and page 15, paragraph 0081). This process effectively shifts each of the apertures (of the image undergoing correction) by an amount equal to the positional displacement between extracted singular points.

Once images have been aligned, they are compared to determine the degree to which they match (paragraph 0035).

Therefore it can now be seen that the references of Wiebe, Hara and Iwata are combinable because it would have been obvious to one of ordinary skill in the art at the time of invention to use the core detection method of Hara in combination with the core matching and positional offset determination of Iwata in combination with the verification/access method of Wiebe in order to determine the correlation in the fingerprints used for verification/access process.

With regard to claim 5, Wiebe, Hara and Iwata disclose *an authentication system according to claim 1.* Wiebe further discloses *wherein said reader/writer further comprises:*

Calculating means for calculating information for correcting a positional displacement between a registered fingerprint in said template and an input

fingerprint that is newly input by forming images having specific luminance distribution in the peripheries of individual featuring points with regard to the input fingerprint, and by correlating said images there between (column 6, lines 15-27 and column 9, lines 1-13). As can best be determined from this claimed limitation, *having specific luminance distribution in the peripheries of individual featuring points* is interpreted as a "grey scale of sufficient quality" of the image (column 9, line 1). The correcting of positional offset is discussed in claim 1 (column 6, lines 15-27).

Wiebe further discloses *retrieving means for retrieving a small image in the vicinity of a featuring point of said registered fingerprint is by matching in the vicinity of coordinates for an image of said inputted fingerprint, that wherein the positional displacement of the coordinates has been corrected* (column 6, lines 16-27 and column 9, lines 15-26). Wiebe discloses comparing several small images within the fingerprint images used as a template and Wiebe also discloses positional displacement is performed.

Wiebe further discloses *judging means for judging whether or not said fingerprint image is identical to said template according to the number of matched said small images* (column 9, lines 50-67).

With regard to claim 6, Wiebe, Hara and Iwata disclose an authentication system according to claim 1, and Wiebe discloses *wherein the calculation means for*

calculating an information for correcting a positional displacement (column 6,

lines 17-28).

Hara discloses determining a *core position by calculating other candidate*

points of the fingerprint information by calculating a coordinate of the candidate

point of an initial position and a vector of ridge at the initial position of the

candidate point (column 5, lines 20-35 and column 6, lines 40-62). Here Hara

discloses finding tangential lines for the ridges and recording them. This is interpreted

as vectors (Figs. 18 and 19). This kind of vector would be considered a tangential

vector, which by definition would be orthogonal to a normal vector. These vectors or

are used to determine curvature and finally core position.

Hara does not disclose the vectors to be normal vectors. It would be obvious to

one of ordinary skill in the art that once tangential vectors are known it is only a logical

step to calculate normal vectors should they be desired.

Iwata teaches that the local direction of a contour is defined in terms of its normal

and tangent vectors within the aperture image (paragraphs 0056 and 0059). The

singular point (e.g. the core of the fingerprint) is extracted based on the direction code

of each of the aforesaid aperture images (paragraph 0033 and 0067). Direction codes

are predetermined (page 13, lines 39-41 and 0063). Core detection in Iwata is

accomplished by retrieving a normal vector of a plurality of ridges sequentially, and

determining a position where a direction of said normal varies from a predetermined

value (pages 12-13, paragraphs 0052-0059, drawing 8). According to Iwata, the core

located at a position in the fingerprint where ridge contours attain their maximum

curvature (page 12, paragraph 0053). An abundance of prior art techniques exist for

evaluating the curvature of contours, groups of contours, or vector fields, many of which

utilize fields of normal vectors. Iwata for example, determines curvatures of ridge

contours by evaluating their direction within each of the aperture images (paragraph

0055). Therefore it would have been obvious to one of ordinary skill in the art to use

normal vectors as taught by Iwata, either in place of, or in combination with the

tangential vectors taught by Hara to determine a core position of the fingerprints and to

use the core position to calculate positional displacement as taught by Iwata for use in

the access method of Wiebe.

With regard to claim 7, Wiebe, Hara and Iwata disclose an authentication system

according to claim 1, and Hara discloses *wherein the preprocessing means*

invalidates the candidate points having no more than a threshold value of

curvature, and determines the core position by averaging the coordinates for the

candidate points left over (column 12, lines 13-18). Hara discloses calculating a

mean value to determine the core position. Here all points less than the threshold are

invalidated as all other candidate points less than the one maximum are invalidated.

The left over point is therefore the core position.

With regard to claim 8, Wiebe, Hara and Iwata disclose an authentication system

according to claim 1, and Wiebe discloses *wherein the judging means judges*

identity of the fingerprint registered in the template and the input fingerprint,

when a number of the match is no less than a threshold value (column 10, lines 1-4).

With regard to claim 9, Wiebe, Hara and Iwata disclose an authentication system according to claim 1, and Wiebe discloses *wherein the private key is used for authentication of applications in a computer being connected to the reader/writer* (column 5, lines 43-48). The operations that the processing unit is determined to be able to perform on the sensitive data is interpreted as authentication of applications in a computer connected to the reader/writer and the private key is again interpreted as the matching condition between reference biometric data and preprocessed biometric data. Wiebe further discloses checking the right to access sensitive material (column 3, lines 42-50 and column 1, lines 45-54). Once that right is checked, that act in itself can be interpreted as a key. The sensitive information stored on the smart card may include, though is clearly not limited to a "key" which makes it possible to open a door to access authorized data, so-called digital certificates (column 3, lines 42-50) or more conventional information, such as a personal identification code or PIN (column 1, lines 50-54).

With regard to claim 10, Wiebe discloses *a mobile storage device for authentication utilizing biometric information* (column 3, lines 27-40 and Fig.1, element 1, smart card) *the mobile storage device performing at least one of*

transferring read information to and receiving write information from a

reader/writer (column 10, lines 10-15),

> *wherein the reader/writer comprises:*

> *A biological information input device which inputs fingerprint information*

(Fig.1, element 8).

Wiebe further discloses *wherein said mobile storage device comprises:*

A template which registers a plurality of coordinates of featuring points of

the fingerprint and small images in vicinity of the coordinates (column 8, lines 51-

59 and column 9, lines 44-65 and column 5, lines 12-20). Wiebe discloses using partial

images as part of a template for registering the fingerprints. The coordinates are

interpreted as being included in the registering known locations in the templates.

Wiebe further discloses *a private key to be used for electronic authentication*

(column 3, lines 42-50 and column 1, lines 45-54). The sensitive information stored on

the smart card may include, though is clearly not limited to a "key" which makes it

possible to open a door to access authorized data, so-called digital certificates (column

3, lines 42-50) or more conventional information, such as a personal identification code

or PIN (column 1, lines 50-54).

Wiebe further teaches the use of *a transmitting means for transmitting the*

position generated in the preprocessing means to said mobile storage device

according to a request from said mobile storage device (column 6, lines 39-47).

The smart card has communication means capable of receiving and transmitting

information. Using the determined position to align images is just one of many well-known methods used in the art to align and verify fingerprint images.

Wiebe further discloses a preprocessing means to calculate certain features of the fingerprint for comparison purposes (column 3, line 65-column 4, line 14 and column 5, lines 6-30).

Wiebe does not expressly disclose the preprocessing for determining curvatures coordinates and a core of the image from the average of the coordinates. Wiebe teaches that any method appropriate for the application for comparing feature information of fingerprint information may be used in the access method taught (column 6, lines 5-9).

Wiebe discloses *preprocessing means for calculating coordinates or features of the fingerprint and rotating/translating the fingerprint to better register the stored fingerprint with the input fingerprint* (column 5, lines 35-42 and column 6, lines 5-29), but does not disclose the details of calculating the coordinates and the core of the fingerprint. The calculation of coordinates is considered inherent to knowing the locations of feature points within the image with which to perform registration.

Hara teaches a method that uses *preprocessing means which calculates coordinates and curvatures for a plurality of candidate points of the fingerprint information inputted by the biological information input device* (column 2, lines 32-50 and column 6, lines 48-62 and column 7, lines 1-10).

Hara further teaches that the method *calculates an average value of the coordinates for the plurality of candidate points, and determines a core position by the average value of the coordinates for the plurality of candidate points* (column 11, lines 53-66 and column 12, lines 5-19);

Hara teaches a method of determining a core and Wiebe teaches that any fingerprint feature registration method deemed appropriate might be used in his registration (column 6, lines 5-9). Therefore it would have been obvious to one of ordinary skill in the art to use the core determination taught by Hara in combination with the fingerprint registration and access method taught by Wiebe to register fingerprints using the core determination.

Wiebe discloses the majority of the verification means including translational and rotational practices for correcting positional offsets in the fingerprints to be registered.

Hara teaches the calculation of a core position in a fingerprint using averages of coordinates. Although it should be obvious that the use of a core position determined by Hara in combination with the feature alignment taught by Wiebe would be useful in matching fingerprints, Neither Hara nor Wiebe explicitly disclose using core position offset determination in matching fingerprints or, as claimed, *calculating means for calculating an information for correcting a positional displacement based on a core position of a registered fingerprint recorded in said template and a core position of a registered fingerprint recorded in said template and a core position*

of an input fingerprint that is newly inputted, be referring to each said core

position I the reader/writer.

Iwata teaches calculating information for correcting positional offset and aligning

two fingerprint images using a determined core position. The reference of Iwata is

discussed here to teach that the use of a core position as determined by Hara would be

used to determine the specifics of the offset correction disclosed by Wiebe.

Iwata discloses a method for biometric authentication similar to that of Wiebe by

determining in the degree to which a captured fingerprint image (Fig. 1 and paragraph

0031, sentence 2 and page 11, line 18, the input fingerprint) matches a previously

stored template (i.e. a registration fingerprint image). Like the Applicant's claimed

invention, Iwata aligns the input fingerprint image and template using their respective

core positions in order to facilitate subsequent matching procedures (page 8, paragraph

0026).

Iwata further discloses calculating information for correcting a positional

displacement between said registered fingerprint and an input fingerprint that is newly

input by using a core position of the fingerprints (page 9, lines 32-45, page 10, lines 1-5

and page 12, paragraph 0053). Specifically, Iwata extracts a singular point (e.g. the

core – page 12, line 48) from each fingerprint (paragraph 0035). Then, using the

extracted singular points aligns (i.e. correct for positional displacement of) the input

fingerprint image with respect to the template, or vice versa (paragraph 0035). The

alignment can be achieved by shifting one of the images so that the singular points of

both images coincide (i.e. the position of the extracted points are brought "into

agreement" (page 10, paragraph 0035 and page 15, paragraph 0081). This process effectively shifts each of the apertures (of the image undergoing correction) by an amount equal to the positional displacement between extracted singular points.

Once images have been aligned, they are compared to determine the degree to which they match (paragraph 0035).

Therefore it can now be seen that the references of Wiebe, Hara and Iwata are combinable because it would have been obvious to one of ordinary skill in the art at the time of invention to use the core detection method of Hara in combination with the core matching and positional offset determination of Iwata in combination with the verification/access method of Wiebe in order to determine the correlation in the fingerprints used for verification/access process.

Conclusion

8.   Applicant's amendment necessitated the new grounds of rejection presented in the Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Wes Tucker whose telephone number is 571-272-

7427. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Wes Tucker

10-27-05

JINGGE WU
PRIMARY EXAMINER